

Amendments to the Drawings

Please replace Figs. 1, 3 and 4 with the attached replacement figures.

Attachment: Figs. 1, 3 and 4 (3 sheets)

REMARKS

The Office Action dated July 9, 2007, has been received and carefully noted. The above amendments and the following remarks are being submitted as a full and complete response thereto. Claims 7-13 are pending in this application. By this Amendment, claims 1-6 are cancelled without prejudice to or disclaimer of the subject matter disclosed therein, and new claims 7-13 are added. No new matter has been added. Reconsideration of the application is respectfully requested.

The Office Action objects to the Drawings because Figs. 1, 3 and 4 obscure the understanding of the figures. Figs. 1, 3 and 4 are amended responsive to the objection. Thus, withdrawal of the objection to the drawings is respectfully requested.

The Office Action rejects claims 1-6 under 35 U.S.C. §112, second paragraph. The cancellation of claims 1-6 renders their rejection moot. Thus, withdrawal of the rejection of the claims under 35 U.S.C. §112, second paragraph is respectfully requested. If any additional response is needed, the Examiner is requested to contact the Applicants' undersigned representative.

The Office Action rejects claims 1-5 under 35 U.S.C. §103(a) as being obvious over Kosaka (U.S. Patent No. 6,381,389) in view of Dridi et al. (U.S. Patent Application Publication No. 2004/0264903). It is noted that the cancellation of claims 1-5 renders their rejection moot. However, the rejection is respectfully traversed with respect to remaining claims 7-13.

In particular, the above-identified application claims a system for coupling optical guides that include a dielectric optical guide, a planar photonic crystal guide coupled to the dielectric optical guide, the crystal guide having a gradual variation in width, and a plurality of point defects in at least one of the optical guide or the crystal guide, wherein

each of the plurality of point defects has at least one selected from a group consisting of a radius of a point defect, a dielectric constant of the point defect, a relative position of the point defect, and a height of the point defect, as recited in claim 7.

The Office Action admits that Kosaka fails to disclose or suggest the feature of introducing point defects in the coupling structure (Office Action, page 6, lines 6-9). Kosaka teaches a technique of optically coupling an optical fiber to a waveguide using a photonic crystal, and generally couples optical waveguide devices having different spot sizes and uses a photonic crystal having a modulation structure having a refractive index periodic at about the same interval as the wavelength of lights used by the optical waveguide devices (Col. 1, line 59 – Col. 2, lines 6). However, according to the Office Action, Kosaka does not disclose or suggest that the coupling is based on a gradual variation of a width of the photonic crystal guide. The Office Action relies on Dridi to disclose or suggest the missing features of former claim 1. Dridi teaches an integrated photonic crystal structure and method of producing an integrated photonic crystal structure (Abstract), where an adiabatic taper may be implemented and consisting of a number of additional defects which gradually change shape and/or position (paragraph [0047]). However, upon a closer examination of the Dridi reference, Dridi fails to disclose or suggest at least the feature that the coupling is based on a gradual variation of a width of the photonic crystal guide, as recited in claim 7.

For at least the reasons discussed above, the Applicants submit that claim 7, as amended, is allowable over the cited references. Claims 8-13, at least for their dependence on allowable claim 7, and for their added limitations, are also allowable over the applied references. Thus, withdrawal of the rejection of the claims under 35 U.S.C. §103(a) is respectfully requested.

Should the Examiner determine that any further action is necessary to place this application into better form, the Examiner is encouraged to telephone the undersigned representative at the number listed below.

In the event this paper is not considered to be timely filed, the Applicants hereby petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing Attorney Dkt. No. 025719-00006.**

Respectfully submitted,



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Attachments: Petition to Revive the Application
Petition for Extension of Time (three months)
Replacement Drawings (three sheets)

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